

AUTHORIZATION BASIS AND WORK-PLACE HAZARD CONTROL

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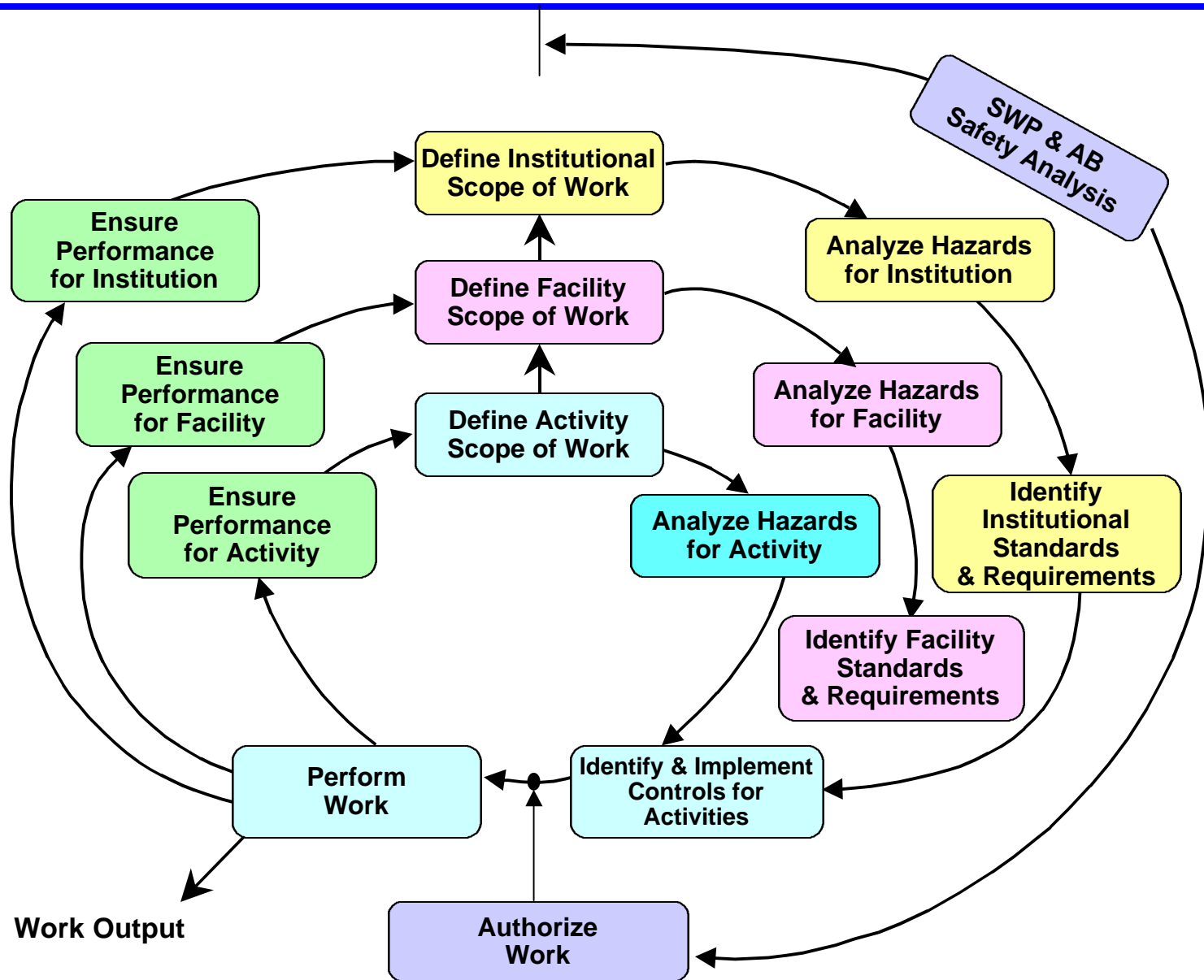
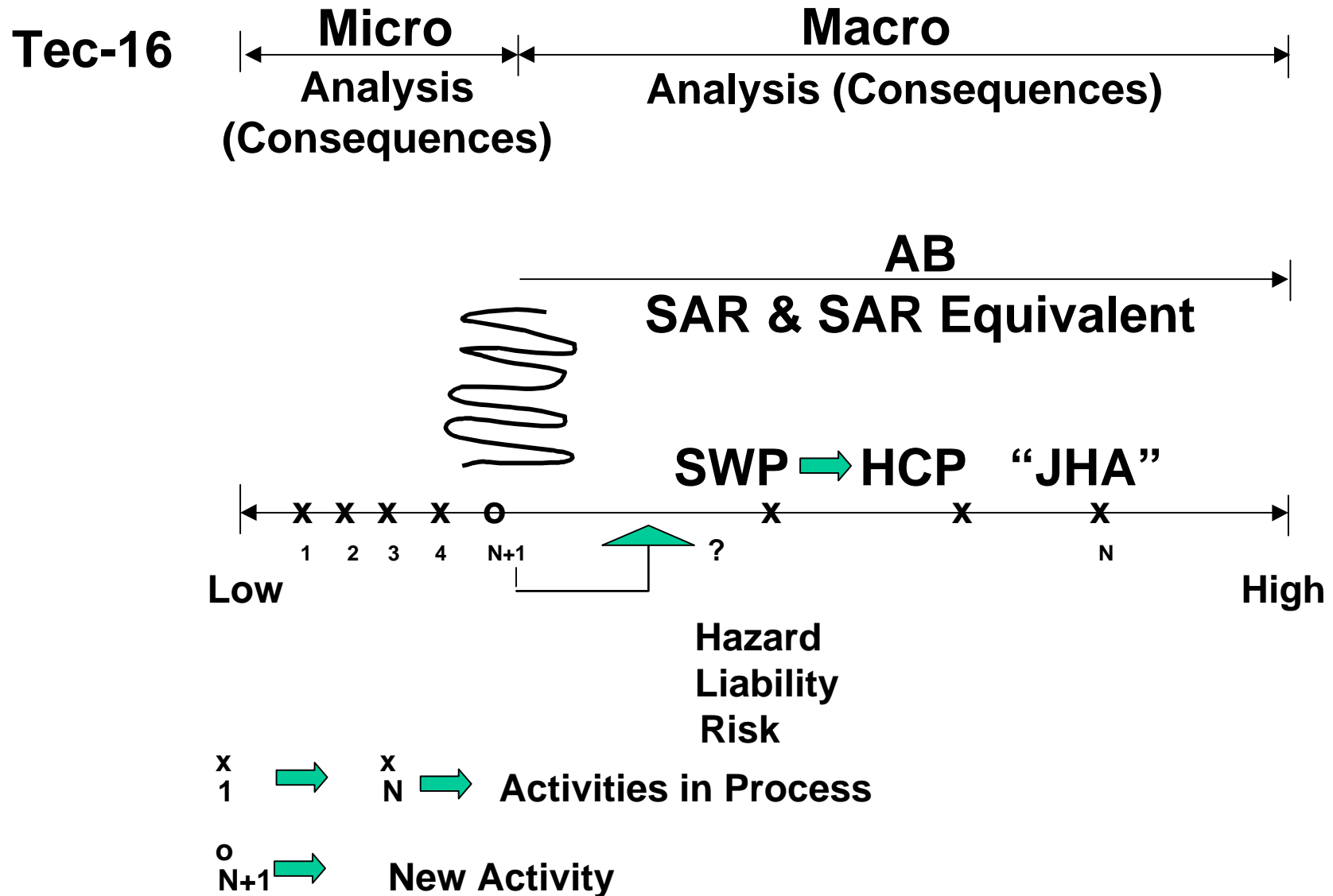


Figure: Relationship Between Safe Work Practices and Authorization Basis



Formal Authorization Basis

- **Formal Authorization Basis designed to develop the basis for authorization of highest hazard work.**
 - *Extensive precedence for nuclear facilities*
- **Responsibility of facility to develop and implement**
 - **Analysis by safety analysts with input from workers**
- **Typically costly and time consuming**
 - *can involve complex calculations(consequences)*
 - *formal selection and designation of controls*
 - >engineered systems preferable
- **Workers, Public, Environment**

Non-Nuclear AB Program Development

Two major programs implemented at LANL offer protection to workers, the public, and the environment

- Authorization Basis (DOE wide)
 - Applies to facilities with higher hazard activities
 - Analyzes entire facility mission, all processes and activities
- Safe Work Practices/Facility Work Control
 - ISM program specific to LANL
 - Applies to all work activities across the Laboratory

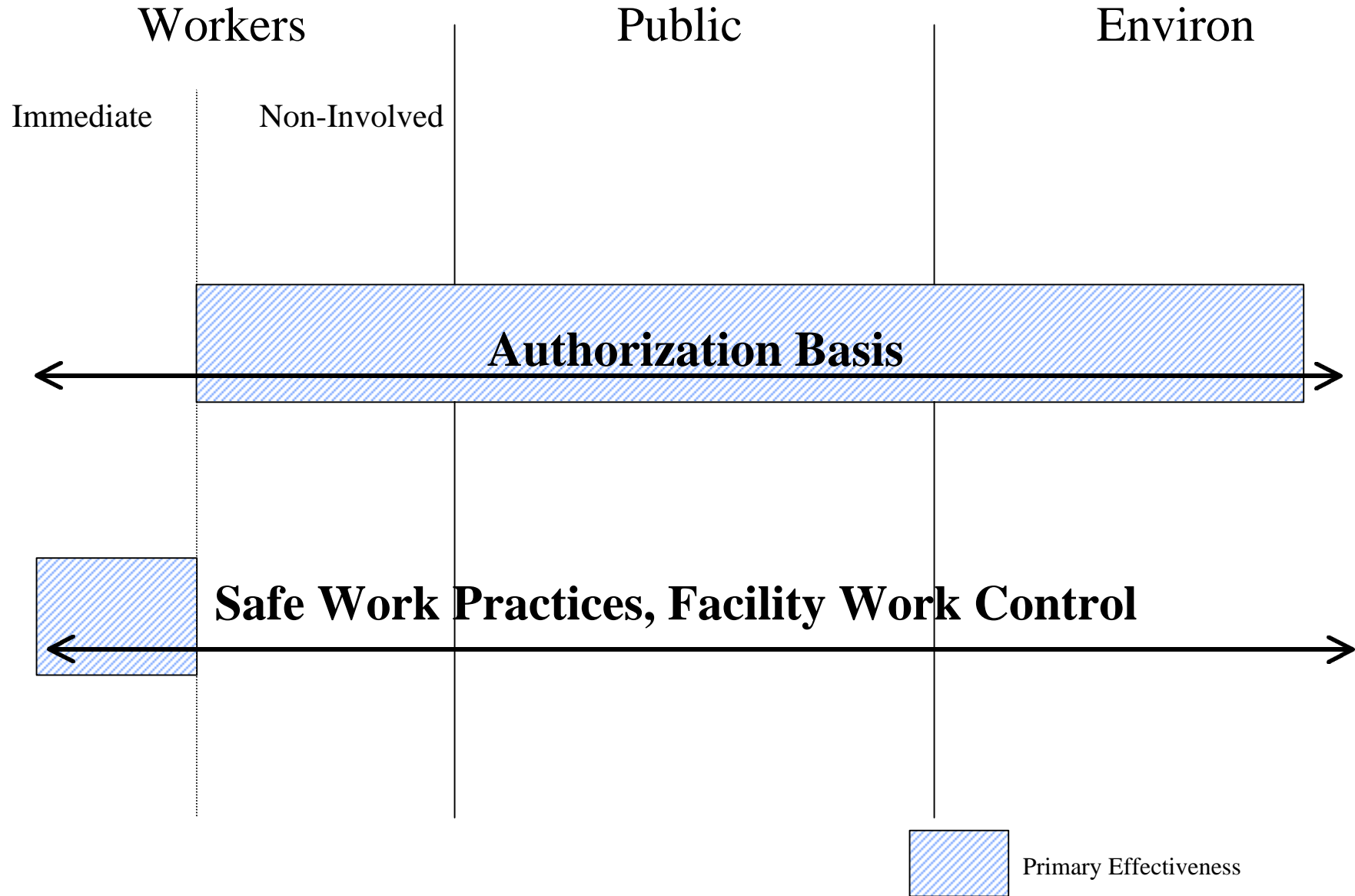
Safe Work Practices and Facility Work Control

- Primary means for assuring protection of the ‘immediate worker’
- Process led by workers to develop HCP/AHA
 - assistance of SMEs (including safety analysts).
- Fast and less expensive than AB
- Controls typically identified by several means:
 - *Institutional safety program and expert judgment*
 - *Typical controls*
 - > *Front line safety systems: HVAC, Fire Protection*
 - > *Protection equipment: Anti-Cs, Respirators, Fall protection...*
 - > *Special safety applications: Confined space permits, special work permits, lock & tag*
 - > *Daily line management: safety briefings, job pre-planning*

Analysis of Consequences to Workers

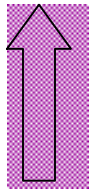
- Localized worker consequences difficult to quantify by “normal” safety analysis techniques.
- Controls are usually readily apparent and based on codes, regulations, or best professional practice.
 - *LANL institutional safety programs*
 - *Safety analysts professional judgment for higher risks*
- Much broader in scope and changes to processes and the controls impacting worker safety are more common.

Integrated Safety Management



Integrated Safety Management

Authorization Basis



Serious consequences of the facility work that can also affect non-involved workers and/or the public. REQUIRE additional evaluation & controls under AB

THRESHOLD



Serious consequences associated with hazards of facility work limited to immediate workers. RELY on SWP, FWC for primary protection. Facility Safety Plan documents authorization for facility.

Safe Work Practices, Facility Work Control